

# PATENT ABSTRACTS OF JAPAN

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(71)Applicant : KOBE STEEL LTD

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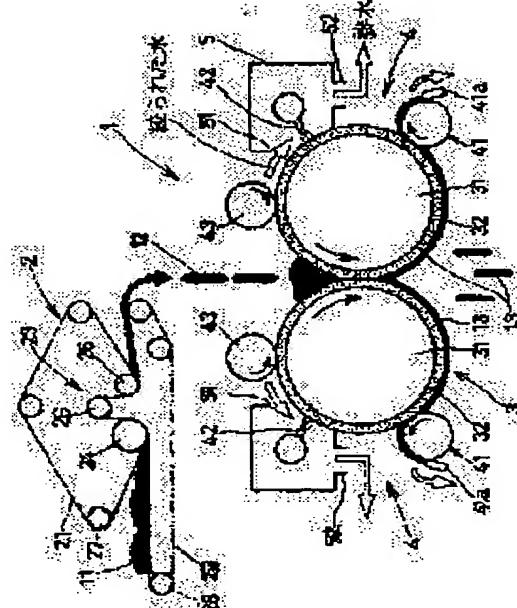
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YOSHIDA SHIGEYUKI

## (54) SYSTEM FOR DEWATERING MATERIAL TO BE DEWATERED

### (57)Abstract:

**PROBLEM TO BE SOLVED:** To provide a system for dewatering a material to be dewatered for improving the dewatering capacity of the material by raising the feeding capacity of the material to two dewatering rollers by reducing the quantity of separated water which is generated on the supply side of the material of a roller press dewaterer.

**SOLUTION:** On the outer circumferential surfaces of the dewatering rollers 31, 31 of the roller press dewaterer 3, a roller surface materials 32 which has a water absorbing function and also the material to be dewatered are fed and wound around. A belt press dewaterer 2 for supplying moisture ratio adjusting sludge 12 is provided and moisture ratio is adjusted by dewatering to be come lower than liquid limit and the sludge is provided on the side of the supply side of the material of the roller press dewaterer 3, and further a roller regenerating means 4 consisting of transfer rollers 41 for transferring dewatered cake 13 stuck to the roller surface materials 32, washing nozzles 42 for washing the roller surface materials 32 and squeezing rollers 43 for squeezing the roller surface materials 32 is provided.



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(71)Applicant : KOBE STEEL LTD

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(30)Priority

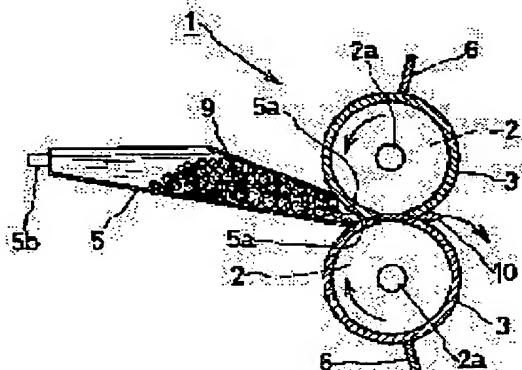
Priority number : 10120499 Priority date : 30.04.1998 Priority country : JP

## (54) ROLL PRESSURE TYPE DEHYDRATION APPARATUS

### (57)Abstract:

**PROBLEM TO BE SOLVED:** To provide a roll pressure type dehydration apparatus capable of dehydrating dredged soil of lakes and marshes, a dam or rivers, building soil and sludge in industrial waste water or sewage in low cost.

**SOLUTION:** A roll pressure type dehydration apparatus 1 is constituted of dehydration rolls 2, 2 wound by a roll surface material being nonwoven fabric comprising stainless steel-containing polyester having proper friction resistance, elasticity and water permeability and brought to a mutual rotary state in parallel and the charging hopper 5 arranged on the supply side of the material 9 to be dehydrated of the dehydration rolls 2, 2 and having circular arc-shaped notches 5a, 5a providing the gap of a degree slightly protruding the material 9 to be dehydrated between the leading end of the hopper and the roll surface materials 3 wound around the dehydration rolls 2, 2. By this constitution, a belt like filter fabric, a roller group over which the filter fabric is trained and a filter fabric washing apparatus are dispensed with and filter fabric replacing work becomes unnecessary and, therefore, dredged soil of lakes and marshes, a dam or rivers, building soil and sludge in industrial waste water or sewage can be dehydrated at low cost.



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(71)Applicant : KOBE STEEL LTD

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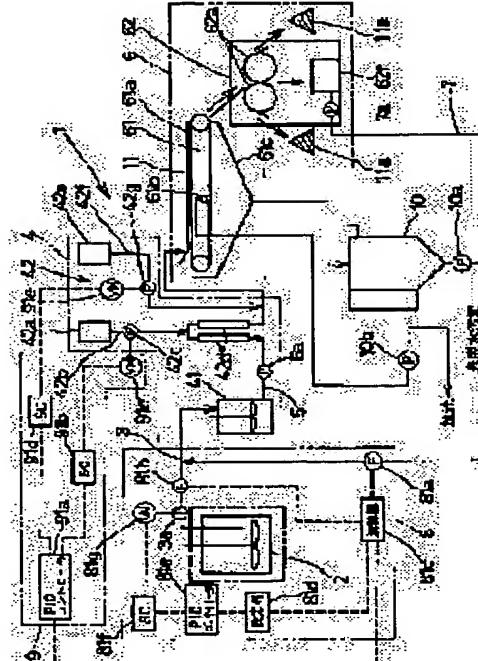
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## (54) SLUDGE DEHYDRATING SYSTEM

### (57)Abstract:

**PROBLEM TO BE SOLVED:** To provide a sludge dehydrating system eliminating the generation of non-dehydrated sludge which must be treated as industrial waste and capable of obtaining a dehydrated cake low in its water containing ratio.

**SOLUTION:** In a dehydration system equipped with a sludge supply process 4 consisting of a sludge conditioning tank 41 to which raw sludge is supplied from a raw sludge tank 2 and a flocculant adding device 42 and a dehydration process 6 consisting of a gravitational dehydration conveyor 61 receiving the flocculant added substance 11 to be dehydrated from the sludge supply process 4 to dehydrate the same and a roll pressure type dehydrator 62, if the non-dehydrated sludge generated at a time of pressurization by the roll pressure type dehydrator 62 is returned to the sludge conditioning tank 41 by a non-dehydrated sludge return line 7 to be repeatedly dehydrated at a time of the washing of the dehydration feed belt 61a of the gravitational dehydration conveyor 61, non-dehydrated sludge which must be treated as industrial waste is not generated and sludge can be pressed and dehydrated by the strong pressure force of the roll pressure type dehydrator 62 without generating non-dehydrated sludge.



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